

What Is Claimed Is:

1. A removable filter system for filtering particles in a fluid under transfer inside a duct, the removable filter system being capable of insertion into, or removal from, the duct without halting fluid transfer through the duct, the removable filter system comprising:
 - a) a filter frame including one or more filter components; and
 - b) a movement assembly including a drive mechanism, a linkage coupled to the drive mechanism and attached to the filter frame, and means for the filter frame to move into and out of the duct upon actuation of the drive mechanism.
2. The removable filter system as claimed in Claim 1 wherein the means for the filter frame to move into and out of the duct includes a first stationary rail and a second stationary rail affixable to the inside of the duct and slidingly engageable with the filter frame such that, upon actuation of the drive mechanism, the filter frame slides on the first stationary rail and the second stationary rail.
3. The removable filter system as claimed in Claim 2 wherein the filter frame includes a first channel and a second channel forming a portion of its perimeter, wherein the first channel is designed to retain therein the first stationary rail and the second channel is designed to retain therein the second stationary rail.
4. The removable filter system as claimed in Claim 1 wherein the filter frame includes a plurality of bays and wherein each of the plurality of bays is arranged to retain therein one of the one or more filter components.
5. The removable filter system as claimed in Claim 4 wherein the filter frame includes one or more lands separating each of the plurality of bays.
6. The removable filter system as claimed in Claim 4 wherein the plurality of bays is rigidly connected together at the one or more lands.

7. The removable filter system as claimed in Claim 4 wherein the plurality of bays is hingedly connected together at the one or more lands.
8. The removable filter system as claimed in Claim 4 wherein the plurality of bays is detachably connected together at the one or more lands.
9. The removable filter system as claimed in Claim 2 wherein at least one of the first stationary rail and the second stationary rail includes a plurality of air jets to provide an air cushion at the location of the duct where the filter frame enters and exits the duct.
10. The removable filter system as claimed in Claim 1 wherein the drive mechanism is a guillotine damper gate drive.
11. The removable filter system as claimed in Claim 1 wherein the linkage is a spindle connected to the filter frame.
12. The removable filter system as claimed in Claim 1 wherein the linkage is a rack and pinion and the drive mechanism is a worm gear actuator.
13. The removable filter system as claimed in Claim 1 wherein the linkage is a ball screw assembly and the drive mechanism is a ball screw actuator.
14. The removable filter system as claimed in Claim 1 wherein the drive mechanism and linkage in combination is a hydraulic actuator.